

Appendix D: Survey Instrument

Use of Forest Areas and Perceptions of Forest Management

*Conducted by
Center for Landscape Dynamics
The Pennsylvania State University*

Your help on this study is greatly appreciated!
Please note that you may skip any questions that you do not want to answer.
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1. **First, we would like to know a little about how you typically use a forested area.**
In a typical year, about how often do you visit a forested area for recreation purposes?
 - ☐ Less than 1 time per year (7)
 - ☐ About 1 - 5 times per year (1)
 - ☐ About 6 - 10 times per year (2)
 - ☐ About 1 time per month during the year (3)
 - ☐ About 2 - 3 times per month during the year (4)
 - ☐ About 1 time per week during the year (5)
 - ☐ More than 1 time per week during the year (6)
2. How far do you typically travel to visit a forested area in the recent two years? Please answer in the number of **minutes/hours**, not distance.
 - ☐ 0 - 14 minutes (1)
 - ☐ 15 - 29 minutes (2)
 - ☐ 30 - 59 minutes (3)
 - ☐ 1 - 2 hours (4)
 - ☐ Longer than 2 hours (5)
 - ☐ I haven't visited a forested area for the past two years (6)

3. Please check all the recreation activities you typically partake in during your visits to forested areas and the SINGLE primary activity you did today in this forested area.

	Typical activity (1)	Primary Activity Today (Select One) (2)
Running (1)		
Hiking (2)		
Walking/Dog Walking (3)		
Driving for Pleasure/Viewing Scenery (4)		
Wildlife Viewing (5)		
Hunting: Game birds (6)		
Hunting: Small game (7)		
Hunting: Deer (8)		
Hunting: Bear (9)		
Fishing (11)		
Horseback Riding (12)		

Climbing (13)	
Backpacking (14)	
Camping (22)	
Canoeing/Rafting / Kayaking (15)	
Boating / Water skiing / Jet skiing (16)	
Cross Country Skiing (17)	
Downhill Skiing / Snowboarding (18)	
Off Highway Vehicle use (19)	
Biking (20)	
Mountain Biking (23)	
Other: Please specify (21)	

4. Given the following three images of forest areas, please rank which forest area you would prefer to go to, with 1 being your 1st choice (most preferred), 2 being your 2nd choice and 3 being your 3rd choice (least preferred).



_____ Image 1

_____ Image 2

_____ Image 3

5. Hypothetically, if it takes you 15 minutes to travel to your least preferred forest area, how much additional time are you willing to travel to your 2nd and most preferred forest areas?
- Additional travel time for 2nd preferred forest (in minutes) (1) _____
 - Additional travel time for most preferred forest (in minutes) (2) _____
6. Now suppose you have to choose between two forest areas for outdoor recreation. On each of the following five questions, you will be provided descriptions of the forest conditions for the two areas, and asked to choose which forest area you would rather visit.
- The two areas are ONLY different in terms of their wildfire hazard, wildlife habitat quality, visibility in the

forest (defined below), and travel time required to reach the site. All other characteristics such as the difficulty of hiking trails, parking availability, and number of people on the trails are the same.

Chracteristics	Definition	Condition
Fire hazard	If a fire occurs, fire hazard determines the rate-of-spread, intensity, fire persistence, and resistance-to-control.	High Medium Low
Habitat quality	The degree to which trees, shrubs, and other plants in the forest provide protection and food for wildlife species.	High Medium Low
Visibility	The distance one can see through the forest at eye level as a function of the density of trees and shrubs.	High Medium Low
Required travel time	The travel time required to reach the forest.	15 - 60 minutes

Scenario 1: (as an example. Every participant assesses five scenarios.)

Which of the following forest area would you rather visit?

Forest Site 1	Forest Site 2
Moderate Fire Hazard	Moderate Fire Hazard
High Habitat Quality	High Habitat Quality
High Visibility	Moderate Visibility
60 minutes Travel Time	15 minutes Travel Time

Your choice:

- ☐ Forest Site 1 (1)
- ☐ Forest Site 2 (2)

7. Do you think that you were given enough information to make an informed choice?
 - ☐ Yes (1)
 - ☐ No (2)
8. What additional information would you need to make an informed choice?
9. Please rank the following four factors according to their influence on your decision to visit a forest area (1 = the most important, 4 = the least important).
 _____ Fire hazard (1) _____ Habitat quality (2) _____ Visibility (3) _____ Required travel time (4)
10. Beyond fire hazard, habitat quality, visibility and required travel time, are there any other factors that influence your decision to visit a forest area?
11. Next, we would like to know a little about your perceptions toward Prescribed Burning as a forest management tool.

Prescribed burning involves the controlled use of fire to accomplish specific management goals, such as burning off excess vegetation in the forest to reduce accumulation of flammable fuels, promote tree regeneration and/or to improve wildlife habitat.

Please indicate how strongly you AGREE or DISAGREE with the following statement:

I am familiar with the use of prescribed burning in forests.

- ☐ Completely Disagree (6)
- ☐ Strongly Disagree (1)
- ☐ Moderately Disagree (2)
- ☐ Neutral (3)
- ☐ Moderately Agree (4)
- ☐ Strongly Agree (5)
- ☐ Completely Agree (7)

12. Based on your understanding, how often would there naturally be a WILDFIRE in this area?

- ☐ 0 – 5 years (1)
- ☐ 5 – 15 years (2)
- ☐ 15 – 30 years (3)
- ☐ 30 – 100 years (4)
- ☐ 100 year or more (5)
- ☐ Never (6)
- ☐ No idea (7)

13. Are you aware of any prescribed fires in this area?

- ☐ Yes (1)
- ☐ No (2)
- ☐ Not Sure (3)

14. Please indicate the kinds of experiences you have had with prescribed burns.

	None (1)	Within 5 years ago (2)	More than 5 years ago (3)
Worked with prescribed burn programs at my job (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had my work/job/livelihood affected by a prescribed burn (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Know someone whose work/job/livelihood was affected by a prescribed burn (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saw the flames of a prescribed burn (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saw the smoke of a prescribed burn (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experienced discomfort from the smoke of prescribed burn (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saw parts of a forest that had recently been burned (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saw the regrowth of plants and trees after a prescribed burn (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended a public meeting about prescribed burn management (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learned about prescribed burns in a class (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listened to a ranger or other forest official talk about prescribed burns (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read newspaper or watched TV/video about prescribed burns (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had family/friends tell me about prescribed burns (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Please describe any other experiences you have had with prescribed burns.

16. Based on your understanding of prescribed burns, how would you rate your concern about the following effects?

	Not at all Concerned (1)	Slightly Concerned (2)	Moderately Concerned (3)	Very Concerned (4)	Extremely Concerned (5)
Smoke and associated health concerns (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife mortality during burns (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possible spread to private property (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased forest aesthetics shortly after burns (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited recreational access shortly after burns (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of conducting burns (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Q5 Based on your understanding of prescribed burns, do you think the following effects (concerns) are likely to happen?

	Not at all Likely(0%) (1)	Slightly Likely (25%) (2)	Moderately Likely (50%) (3)	Very Likely (75%) (4)	Completely Likely (100%) (5)
Smoke and associated health concerns (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife mortality during burns (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possible spread to private property (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased forest aesthetics shortly after burns (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited recreational access shortly after burns (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High cost of conducting burns (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How would you rate the IMPORTANCE of the following effects (benefits) of prescribed burns?

	Not at all Important (1)	Slightly Important (2)	Moderately Important (3)	Very Important (4)	Extremely Important (5)
Lower wildfire risk due to fuel reduction (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invasive species control (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of game species carrying capacity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regeneration and preservation of endangered and iconic species (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decline of tick population (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Based on your understanding of prescribed burns, do you think the following effects (benefits) are likely to happen?

	Not at all Likely(0%) (1)	Slightly Likely (25%) (2)	Moderately Likely (50%) (3)	Very Likely (75%) (4)	Completely Likely (100%) (5)
Less wildfire risk due to fuel reduction (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invasive species control (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of game species carrying capacity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regeneration and preservation of endangered and iconic species (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decline of tick population (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. Based on your understanding, how many years will the effects of prescribed fire be visible in a forest?

- ☐ 0 – 5 years (1)
- ☐ 5 – 15 years (2)
- ☐ 15 – 30 years (3)
- ☐ more than 30 years (4)
- ☐ no idea (5)

21. Based on your understanding, how much would it cost to implement a prescribed fire in this area?

- ☐ \$10 – 20/acre (1)
- ☐ \$20 – 40/acre (2)
- ☐ \$40 – 100/acre (3)
- ☐ \$100 – 200/acre (4)
- ☐ \$200 - 300/acre (7)
- ☐ \$300 - 400/acre (8)
- ☐ more than \$400/acre (5)
- ☐ no idea (6)

22. Based on your understanding of prescribed burns, please indicate below how strongly you AGREE or DISAGREE with each of the following statements.

	Completely Disagree (6)	Strongly Disagree (1)	Moderately Disagree (2)	Neutral (3)	Moderately Agree (4)	Strongly Agree (5)	Completely Agree (7)
We should just leave forests alone instead of setting prescribed burns. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescribed burns are not as appropriate as other measures for managing forests because of the associated risks. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's acceptable for forest managers to use prescribed burns to decrease the chances of a large-scale fire. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's acceptable for forest managers to use prescribed burns to improve wildlife and game habitat, and forest conditions (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust that land management agencies know how to effectively plan and conduct prescribed burns. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The benefits of prescribed burns outweigh their risks, so it is appropriate to use prescribed burns for forest management. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. How regularly do you follow the management of this area? For example, through local news, websites, friends and family, etc.

- ☐ Daily (1)
- ☐ A few times a week (2)
- ☐ Weekly (3)
- ☐ A few times a month (4)
- ☐ Monthly (5)
- ☐ A few times a year (6)
- ☐ Yearly (7)
- ☐ Never (8)

24. If a plan is announced for using prescribed fires to burn 300 acres a year in this area and public opinion is solicited, please indicate how strongly you would OPPOSE or SUPPORT this plan.

- ☐ Completely Oppose (6)
- ☐ Strongly Oppose (1)
- ☐ Moderately Oppose (2)
- ☐ Neutral (3)
- ☐ Moderately Support (4)
- ☐ Strongly Support (5)
- ☐ Completely Support (7)

25. Value of time

Many research companies pay people to participate in a focus group. Suppose you've been given the opportunity to be paid a certain amount of money to participate in a full day (8 hours) focus group near your home during one of your days off.

How likely is it you would participate in the focus group if the payment amount is ...?

Please select a response for each payment amount.

	Not at all Likely (0%) (1)	Slightly Likely (25%) (2)	Moderately Likely (50%) (3)	Very Likely (75%) (4)	Completely Likely (100%) (5)
\$50 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$100 (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$200 (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$400 (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$700 (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. **How do you view money today versus money in the future?**

Investing in forest management today will generate improved forest conditions over time. To better understand your preferences for receiving benefits today versus in the future, consider the following question:

Suppose you have a choice of two payment options – Option A or Option B. If you choose Option A, you will receive a sum of money one (1) month from today. If you choose Option B, you will receive a sum of money seven (7) months from today. The sum of money you receive 7 months from now is higher to compensate you

for waiting.

For each of the following payoff options choose either Option A or Option B.

		Preferred Payment Option	
		Option A	Option B
Option A = \$500 in <u>1 month</u>	Option B = \$505 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$512 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$525 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$538 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$552 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$566 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$580 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$609 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$640 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>
Option A = \$500 in <u>1 month</u>	Option B = \$723 in <u>7 months</u>	<input type="radio"/>	<input type="radio"/>

27. **About Yourself**

We would like to know a little about you. This information will remain completely confidential.

Are you:

- ☐ Male (1)
- ☐ Female (2)
- ☐ Prefer not to answer (3)

28. In what year were you born?

29. How many people do you live with in each of the following age groups?

- ☐ Under 18 (1) _____
- ☐ 18-35 (2) _____
- ☐ 36-60 (3) _____
- ☐ Over 60 (4) _____

30. What is your highest completed level of formal education?

- ☐ Less than high school diploma (1)
- ☐ High school diploma or General Education Development (GED) (2)
- ☐ Technical/vocational degree (3)
- ☐ Some college (4)
- ☐ Bachelor's degree (5)
- ☐ Master's degree (6)
- ☐ Ph.D. degree (7)

31. What is the zip code of your current residence?

32. Are you a student?

- ☐ Yes (1)
- ☐ No (2)

33. Which of the following categories best describes your employment status?

- ☐ Unemployed (2)
- ☐ Employed part time (< 30 hours/week) (3)
- ☐ Employed full time (30+ hours/week) (4)
- ☐ Retired (5)

34. Which of the following payment mechanisms best describes your employment status?

- ☐ Hourly worker (1)
- ☐ Salaried employee (2)
- ☐ Tipped employee (3)

35. What was your household income (before taxes) in 2016?

- ☐ \$200,000 or more (1)
- ☐ \$150,000 to \$200,000 (2)
- ☐ \$125,000 to \$149,999 (3)
- ☐ \$100,000 to \$124,999 (4)
- ☐ \$80,000 to \$99,999 (5)
- ☐ \$60,000 to \$79,999 (6)
- ☐ \$50,000 to \$59,999 (7)
- ☐ \$40,000 to \$49,999 (8)
- ☐ \$30,000 to \$39,999 (9)
- ☐ \$20,000 to \$29,999 (10)
- ☐ \$10,000 to \$19,999 (11)
- ☐ Less than \$10,000 (12)
- ☐ Prefer not to answer (13)